NUMBERS

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1) $3-(5-6\div 3)$

$=3-(5-2)$

$=3-3$

$=0$

2) $-25+14\div(5-3)$

$=-25+14\div(2)$

$=-25+7$

$=-18$

3) $25-\frac{1}{2}\{5+4-(3+2-1+3)\}$

$=25-\frac{1}{2}\{5+4-(8-1)\}$

$=25-\frac{1}{2}\{9-7\}$

$=25-\frac{1}{2}\{2\}$

$=24$

4) $27-[38-\{46-(15-13-2)\}]$

$=27-[38-\{46-(+2-2)\}]$

$=27-[38-46]$

$=27-[-8]$

$=35$

5) $36-[18-\{14-(15-4\div 2\times 2)\}]$

$=36-[18-\{14-(15-2\times 2)\}]$

$=36-[18-\{14-(15-4)\}]$

$=36-[18-\{14-(11)\}]$

$=36-[18-\{3\}]$

$=36-[15]$

$=21$

6) $45-[38-\{60\div 3-(6-9\div 3)\div 3\}]$

$=45-[38-\{60\div 3-(6-3)\div 3\}]$

$=45-[38-\{60\div 3-(3)\div 3\}]$

$=45-[38-\{60\div 3-1\}]$

$=45-[38-\{20-1\}]$

$=45-[38-\{+19\}]$

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$= 45 - [38 - 19]$

$= 45 - 19$

$= 26$

7.)

$23 - [23 - \{23 - (23 - 23 - 23)\}]$

$= 23 - [23 - \{23 - (-23)\}]$

$= 23 - [23 - \{23 + 23\}]$

$= 23 - [23 - 46]$

$= 23 - [-23]$

$= 46$

8)

$2550 - [510 - \{270 - (90 - 80 + 70)\}]$

$= 2550 - [510 - \{270 - (10 + 70)\}]$

$= 2550 - [510 - \{270 - 80\}]$

$= 2550 - [510 - 190]$

$= 2550 - 320$

$= 2230$

9.)

$4 + (1/5)[\{-10 \times (25 - 13 - 3)\} \div (-5)]$

$= 4 + (1/5)[\{-10 \times (25 - 16)\} \div (-5)]$

$= 4 + (1/5)[\{-10 \times 9\} \div (-5)]$

$= 4 + (1/5)[-90 \div -5]$

$= 4 + (1/5)[18]$

$= 4 + \frac{18}{5}$

$= \frac{20 + 18}{5}$

$= \frac{38}{5}$

$22 - (1/4)\{-5 - (-48) \div (-16)\}$

$= 22 - (1/4)\{-5 - 3\}$

$= 22 - (1/4)\{-8\}$

$= 22 + (8/4)$

$= 22 + 2$

$= 24.$

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11)

$63 - (-3)\{-2-8-3\} \div 3\{5+(-2)(-1)\}$

$= 63 - (-3)\{-13\} \div 3\{5+2\}$

$= 63 - (-3)\{-13\} \div 3\{7\}$

$= 63 - (-3)\{-13\} \div 21$

$= 63 - 39 \div 21$

$= 63 - \frac{39}{21}$

$= \frac{1323 - 39}{29}$

$= \frac{1284}{29}$ (or) $1,321.655172413$

12)

$[29 - (-2)\{6-(7-3)\}] \div [3 \times \{5+(-3)\times(-2)\}]$

$= [29 - (-2)\{6-(4)\}] \div [3 \times \{5+6\}]$

$= [29 - (-2)\{2\}] \div [3 \times 11]$

$= [29 - (-2)\{2\}] \div 33$

$= [29 - (-4)] \div 33$

$= 33 \div 33$

$= 1$

PRACTICE QUESTIONS OF HCF AND LC.M.

1.) Faind the Largest number which can exactly divide 216, 252, 294

a.) 6 b.) 12 c.) 14 d.) 21

$216 = 2 \times 108$
$= 2 \times 2 \times 54$
$= 2 \times 2 \times 2 \times 27$
$= 2 \times 2 \times 2 \times 3 \times 3 \times 3$

$252 = 2 \times 126$
$= 2 \times 2 \times 63$
$= 2 \times 2 \times 3 \times 21$
$= 2 \times 2 \times 3 \times 7 \times 3$

$294 = 2 \times 147$
$= 2 \times 39 \times 3$
$= 2 \times 3 \times 13 \times 3$

common numbers
$2 \times 3 \times 3$ (According to option)
$\downarrow$ $\swarrow$
$2 \times 3 = 6$

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2.) There is a number greater than 1 which when divide brs 4, 5 and 6 leaves the same reminder of 3 in each case. Find the largest number, smaller than 1000 which satisfy the given condition

a.) 957 b.) 993 c.) 960 d.) 963

Let us consider number as x

$\frac{x-3}{4}$, $\frac{x-3}{5}$, $\frac{x-3}{6}$

-3 for getting same reminder

4 = 2x2 5 = 5* 6 = 2x3

L.C.M of 4, 5, 6 is 60.

now 1000 / 60 = 16 2/3

(60 x 16) + 3

960 + 3

963.

x - 3

963 - 3 = 960

Divide by 4

960 → $\frac{60}{4}$ = 15 → Divided

Divide by 5

960 → $\frac{960}{5}$ = 192

Divide by 6

960 → 2 → divisible

→ 3 → $\frac{9+6}{3} = \frac{15}{3} = 5$

3.) Find the greatest number of 4 digit and the least number of 5 digit that have as their H.C.F . 147.

a.) 9996 and 10143

b.) 9936 and 10080

c.) 9996 and 10080

d.) 9936 and 10140

H.C.F = 147

4 digit = 1000

5 digit = 10000

$\frac{10000}{4}$ = 68.02

x = 147 x t

t = 68

x = 147 x 68

x = 9996. It is the greatest 4 digit number.

So when we take t = 68+1, the number will be 5 digit smaller number

5 digit small number = 147 x 69 = 10143

4.) For how many value of 'p' the LCM of p and 20 will be 40

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a) 1

b) 2

c) 4

d) More than 4.